**IN THE CLAIMS:**

The following is a complete listing of claims in this application.

Claims 1-8 (canceled).

9. (currently amended) In a Bayer process for the treatment of bauxite by alkaline digestion, said Bayer process treatment comprising the steps of treating bauxite ore with a hot, aqueous solution containing sodium hydroxide to obtain a supersaturated solution of sodium aluminate, separating undigested ore residue from the supersaturated solution, seeding the supersaturated sodium aluminate solution after said separation with particles of alumina trihydrate to cause precipitation of alumina trihydrate, and to obtain a depleted sodium aluminate solution designated spent liquor, and recycling the spent liquor to the step of treating bauxite ore,

the improvement comprising removing an aliquot of the spent liquor, heating the aliquot of spent liquor, mixing the heated aliquot of spent liquor with ground bauxite to form a slurry, and returning the slurry to the treating step,

wherein the heating step comprises heating the aliquot of spent liquor to a temperature sufficient that first contact between the ground bauxite and the spent liquor occurs at a temperature of greater than about 95°C, and that after said mixing step, the slurry is at a temperature greater than about 95°C.

10. (previously presented) Process according to claim 9, wherein the heating step is sufficient that after said mixing step, the slurry is at a temperature at least about boiling temperature at atmospheric pressure.

11. (previously presented) Process according to claim 9, additionally comprising grinding the bauxite in the presence of an aliquot representing less than 15% of the liquor.

12. (previously presented) Process according to claim 9, wherein the ground bauxite is heated before mixing to a temperature of about the temperature to which the said aliquot of spent liquor is heated.

13. (previously presented) Process according to claim 9, additionally comprising wet grinding the bauxite at a temperature greater than 95°C.

14. (previously presented) Process according to claim 9, wherein the aliquot of spent liquor is an amount not exceeding 25% of total liquor flow.

15. (previously presented) Process according to claim 9, wherein the aliquot is obtained from washer overflow, an aqueous flow output from washing of the undigested ore residue.

16. (previously presented) Process according to claim 9, wherein the slurry is subjected to a predesilication treatment in a desilication autoclave, followed by a liquid / solid separation, the liquid being returned to the desilication autoclave and the solid being injected into a digester autoclave.